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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,634	10/06/2003	Jonghee Han	2003P52607US/I331.108.101	3921
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Dicke, Billig & Czaja, PLLC Suite 2250 Fifth Street Towers 100 South Fifth Street Minneapolis, MN 55402		EXAMINER LE, THONG QUOC		
		ART UNIT 2818 PAPER NUMBER		
DATE MAILED: 11/24/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/679,634	Applicant(s) HAN, JONGHEE	
	Examiner Thong Q. Le	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-32 is/are rejected.
- 7) ☒ Claim(s) 6-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1--32 are presented for examination.

Information Disclosure Statement

2. This office acknowledges receipt of the following items from the Applicant:
Information Disclosure Statement (IDS) filed on 10/06/2003.
3. Information disclosed and list on PTO 1449 was considered.

Specification

4. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "**shift register**" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to under 37 CFR 1.83(a) because they fail to show **"a shift register"** as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings must shown "a shift register" as disclose in claims 5, 14,20 and 26.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5, 14, 20, 29 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Accordance with drawings in present application, no drawing to show a shift register as disclosing in claims 5, 14, 20 and 29. Therefore, claims 5, 14,20,29 are rejected.

Claim 5, 14, 20 and 29 should be amended or canceled.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1-5, 12-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Borkenhagen et al. (U.S. Patent No. 6,671,211).

Regarding claim 1, Borkenhagen et al. disclose a random access memory (Figure 3, 40), comprising:

a latching circuit (Figure 4, 56) configured to receive a first signal and provide a second signal corresponding to the first signal to latch data signals (DQS) into the random access memory (Figure 3); and

a logic circuit (Figure 4, 64) configured to provide a first response after a predetermined number of the data signals (Figure 4, DQS) have been latched into the random access memory by the second signal, wherein the latching circuit is configured to receive the first response and lock the second signal to a logic level (Figure 4) based on the first signal and the first response to prevent inadvertent latching of other data signals (ABSTRACT, Column 3, lines 1-5).

Regarding claims 2-4, Borkenhagen et al. disclose wherein the latching circuit (Figure 4) comprises a first latch (52) electrically coupled to the logic circuit; and a second latch (56) electrically coupled to the first latch, and wherein the latching circuit a

first (56) latch configured to receive the first response (DQ) and provide a second response based on the first response and the first signal; and a second latch (52) configured to receive the second response and lock (60) the second signal to the logic level (62) based on the first signal and the second response, and wherein the logic circuit comprises a counter (60) configured to count clock cycles that correspond to the data signals latched into the random access memory (Column 2, lines 20-26).

Regarding claim 12, Borkenhagen et al. disclose a random access memory (Figures 3-4), comprising:

a logic circuit (Figure 4) configured to receive a clock signal and provide a first response after a predetermined number of clock edges have been received from the clock signal;

a first latch circuit (52) configured to receive the first response and a first signal and provide a second response based on the first response and the first signal; and

a second latch circuit (56) configured to receive the second response and the first signal and provide a corresponding second signal, wherein the second latch circuit is configured to lock the second signal to a logic level based on the second response and the first signal.

Regarding claims 13, 15-17, 21-22, Borkenhagen et al. disclose wherein the logic circuit comprises a counter (Figure 4, 60) configured to receive burst length information that comprises the predetermined number of clock edges and receive a write command signal that is an indication to start counting the clock edges, and wherein the random

access memory is a double data rate synchronous dynamic random access memory (Column 2, lines 20-25).

Regarding claims 18-19, 23-25, Borkenhagen et al. disclose a random access memory (Figure 4) comprising:

a locking circuit (52) that receives a first data strobe (Figure 4) and generates a second data strobe from the first data strobe, wherein the second data strobe latches input data during a write operation and is locked at a logic level after the input data is latched, and wherein the locking circuit comprises a counter (60) configured to start counting in response to a write command signal and count bursts of input data up to a burst length to determine that the input data is latched (Figure 4).

Regarding claims 26-32, the apparatus discussed above would perform the method claims 26-32.

Allowable Subject Matter

11. Claims 6-11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6-11 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Borkenhagen et al. (U.S. Patent No. 6,671,211), and others, does not teach the claimed invention having wherein the logic circuit is configured to respond to positive edges of a clock signal after a write command to determine the

predetermined number of data signals latched into the random access memory, and a counter configured to be reset by a write command signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Le
Primary Examiner
Art Unit 2818

THONG LE
PRIMARY EXAMINER